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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. | |
|-------------------------------------------|-----------------------------|----------------------|-------------------------|-------------------------|--|
| 10/629,437 | 07/29/2003 | Enda M. Walsh | 502428 | 5747 | |
| 23626 | 7590 02/10/2004 | | EXAM | EXAMINER | |
| LEYDIG VOIT & MAYER, LTD 6815 WEAVER ROAD | | | KEASEL, ERIC S | | |
| | ER ROAD), IL 61114-8018 | | ART UNIT PAPER NUMB | | |
| | • | | 3754 | | |
| | | | DATE MAILED: 02/10/2004 | DATE MAILED: 02/10/2004 | |

Please find below and/or attached an Office communication concerning this application or proceeding.

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| •• | Application No. | Applicant(s) | |
| | 10/629,437 | WALSH, ENDA M. | |
| Office Action Summary | Examiner | Art Unit | |
| | Eric Keasel | 3754 | |
| The MAILING DATE of this communication a Period for Reply | appears on the cover sheet wit | h the correspondence add | ress |
| A SHORTENED STATUTORY PERIOD FOR REATHE MAILING DATE OF THIS COMMUNICATION - Extensions of time may be available under the provisions of 37 CFR after SIX (6) MONTHS from the mailing date of this communication. - If the period for reply specified above is less than thirty (30) days, a IN IN OPERION OF THE PROPERTY OF THE MEMORY OF THE PROPERTY OF THE MEMORY OF TH | N. 1.136(a). In no event, however, may a re reply within the statutory minimum of thirty od will apply and will expire SIX (6) MONT tute, cause the application to become ABA | ply be timely filed (30) days will be considered timely. HS from the mailing date of this cor ANDONED (35 U.S.C. § 133). | |
| Status | | | |
| 1) Responsive to communication(s) filed on 14 | 1 Oct 2003. | | |
| | his action is non-final. | | |
| 3) Since this application is in condition for allow closed in accordance with the practice under the practice under the practice. | | | merits is |
| Disposition of Claims | | | |
| 4) ⊠ Claim(s) 1-10 is/are pending in the application 4a) Of the above claim(s) is/are with description 5) □ Claim(s) is/are allowed. 6) ⊠ Claim(s) 1-10 is/are rejected. 7) □ Claim(s) is/are objected to. 8) □ Claim(s) are subject to restriction and | lrawn from consideration. | | |
| Application Papers | | | |
| 9) ☐ The specification is objected to by the Exam 10) ☑ The drawing(s) filed on 29 July 2003 is/are: Applicant may not request that any objection to t Replacement drawing sheet(s) including the corr 11) ☐ The oath or declaration is objected to by the | a) accepted or b) object he drawing(s) be held in abeyand ection is required if the drawing(s | ce. See 37 CFR 1.85(a). s) is objected to. See 37 CFF | |
| Priority under 35 U.S.C. § 119 | | | |
| 12) Acknowledgment is made of a claim for foreign a) All b) Some * c) None of: 1. Certified copies of the priority docume 2. Certified copies of the priority docume 3. Copies of the certified copies of the papplication from the International Bure * See the attached detailed Office action for a light section. | ents have been received. ents have been received in Aprionity documents have been reau (PCT Rule 17.2(a)). | oplication No received in this National S | Stage |
| Attachment(s) | | | |
| 1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/6 Paper No(s)/Mail Date 20031014. | Paper No(s) | ummary (PTO-413) //Mail Date formal Patent Application (PTO- | 152) |

Application/Control Number: 10/629,437

Art Unit: 3754

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claims are replete with errors too numerous to mention specifically. The following noted informalities are merely exemplary thereof.

Claim 1 recites "an axial valve chamber" and "a radial passage" in lines 2 and 3. Line 4 recites "the axial passage", which, as written, lacks proper antecedent basis in the claims. It is unclear whether it is meant to be the axial valve chamber, the radial passage, or perhaps another passage.

Claim 1, lines 5 and 6, again recites "an axial valve chamber" and "a radial passage". It is vague and indefinite as to whether these are meant to be the same chamber and passage first recited in lines 2 and 3 or an additional chamber and passage.

Claim 2, lines 2 and 3, recites "the first and second flow passages", which, as written, lacks proper antecedent basis in the claims. It is unclear whether these passages are related to any of the previously recited passages or are meant to be additional passages.

In claim 3, line 6, "the cracking point" lacks proper antecedent basis. It is unclear whether claim 3 should be dependent on claim 2 or not.

In claim 10, line 2, it is unclear what is meant by "a first and second lands".

Application/Control Number: 10/629,437

Art Unit: 3754

In light of the above informalities, the claims have been examined as could best be understood by the examiner. The examiner's failure to apply prior art to any of the claims should not be construed as an indication of allowable subject matter.

Claim Rejections - 35 USC § 102

Claim Rejections - 35 USC § 103

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- 4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 5. Claims 1, 5, 7, 9, and 10 (as understood) are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Tarr et al. (US Patent Number 6,045,120).

It is not entirely clear what is meant by axial and radial and how many passages are intended to be recited in the claims. However, Tarr et al. disclose the basic method of counteracting flow induced forces in a valve assembly by having a high pressure region (41, 43) followed by a narrow restriction (52), an intermediate pressure region (50), a second larger restriction (57), then the low pressure outlet (54). The varying pressures are shown in Fig. 4 and

Art Unit: 3754

the general concept of using this method to counteract flow induced forces is explicitly disclosed in the abstract. Tarr et al. appears to disclose the method; however, of the claims are rewritten to more clearly recite what the various axial and radial passages mean, then Tarr et al. may require an obvious rearranging of the parts.

6. Claims 2-4, 6, and 8 (as understood) are rejected under 35 U.S.C. 103(a) as being unpatentable over Tarr et al.

Tarr et al. fail to explicitly disclose the ranges set forth in claims 2-4, 6, and 8. However, Tarr et al. recognize that these parameters are results-effective variables, i.e. variables that achieve a recognized result. Since the prior art recognizes these as results-effective variables, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have chosen the ranges set forth in the claims, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art (see MPEP 2144.05).

Conclusion

- 7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Lee, Wood et al., Hennessy et al., and Takahashi et al. disclose similar devices.
- 8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric Keasel whose telephone number is (703) 308-6260. The examiner can normally be reached on Monday-Thursday.

Application/Control Number: 10/629,437

Art Unit: 3754

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gene Mancene can be reached on (703) 308-2696. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Eric Keasel 9FEB04

Page 5

Examiner

Art Unit 3754